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FIG. 1
FCPA block diagram

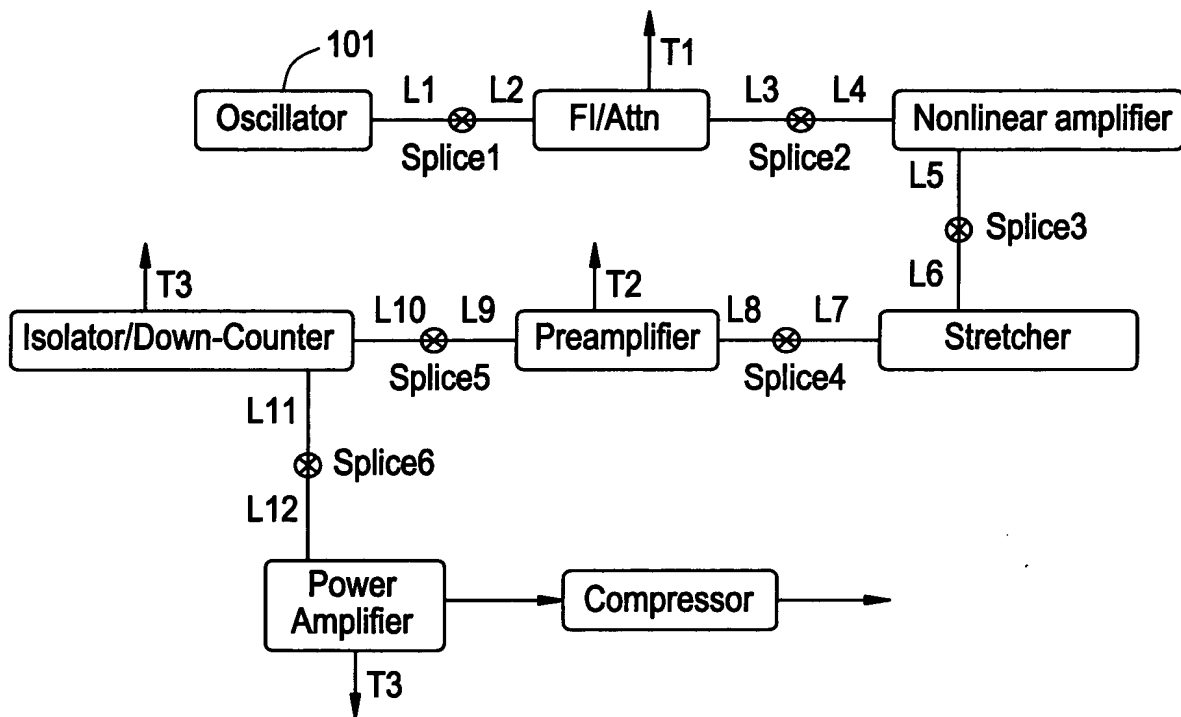


FIG. 1A

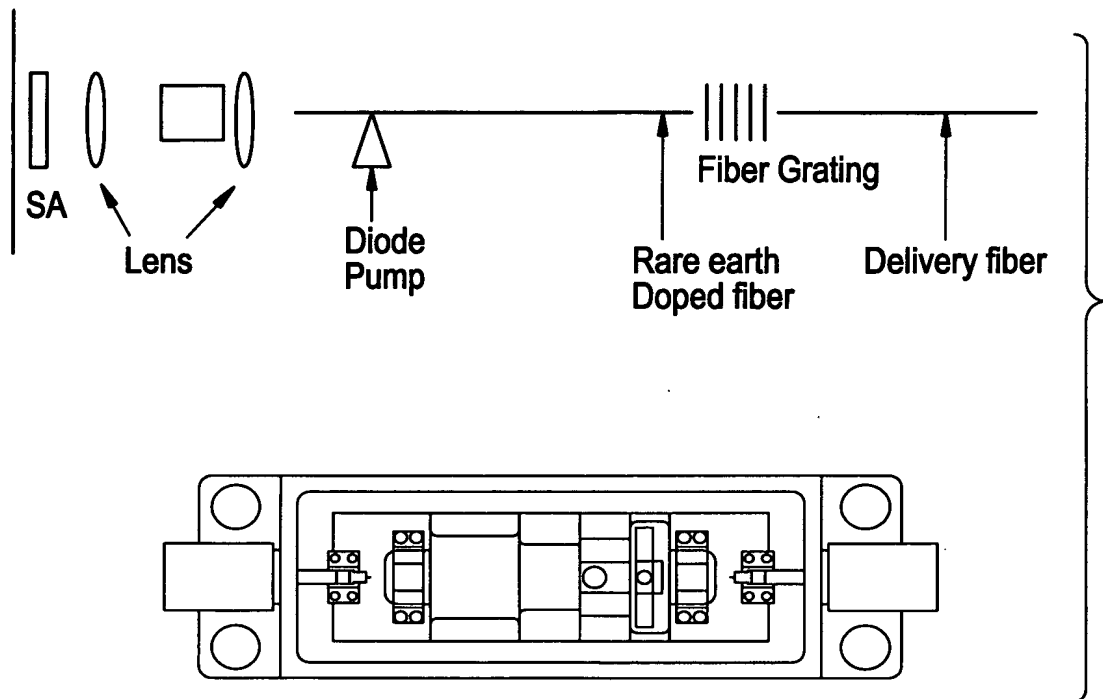


FIG. 1B

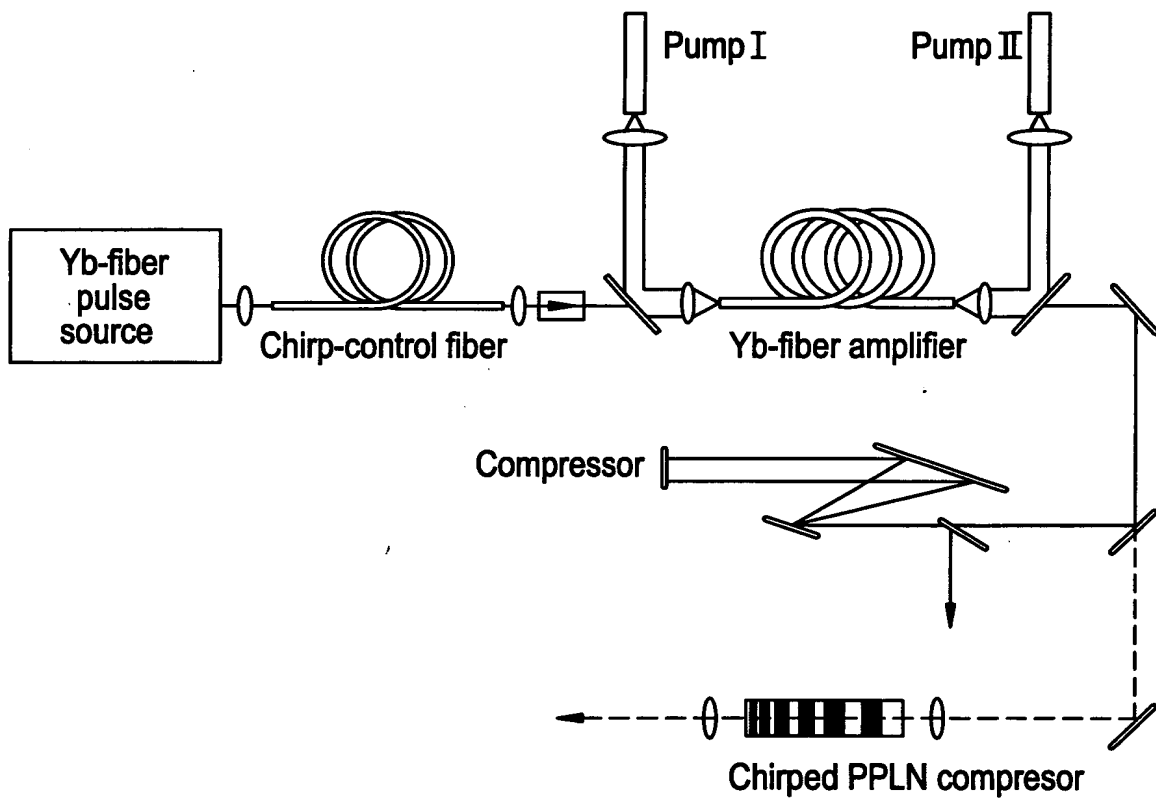


FIG. 1C

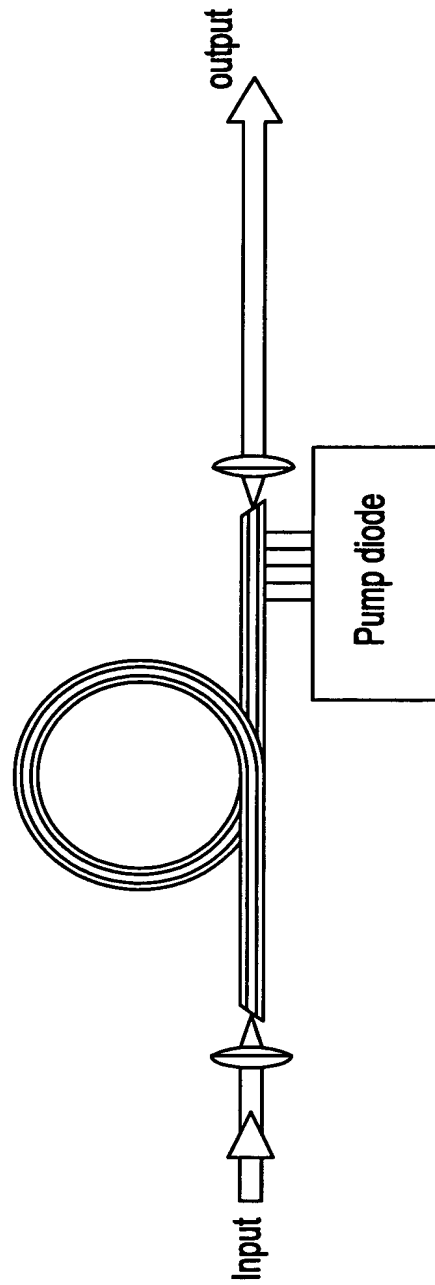


FIG. 2

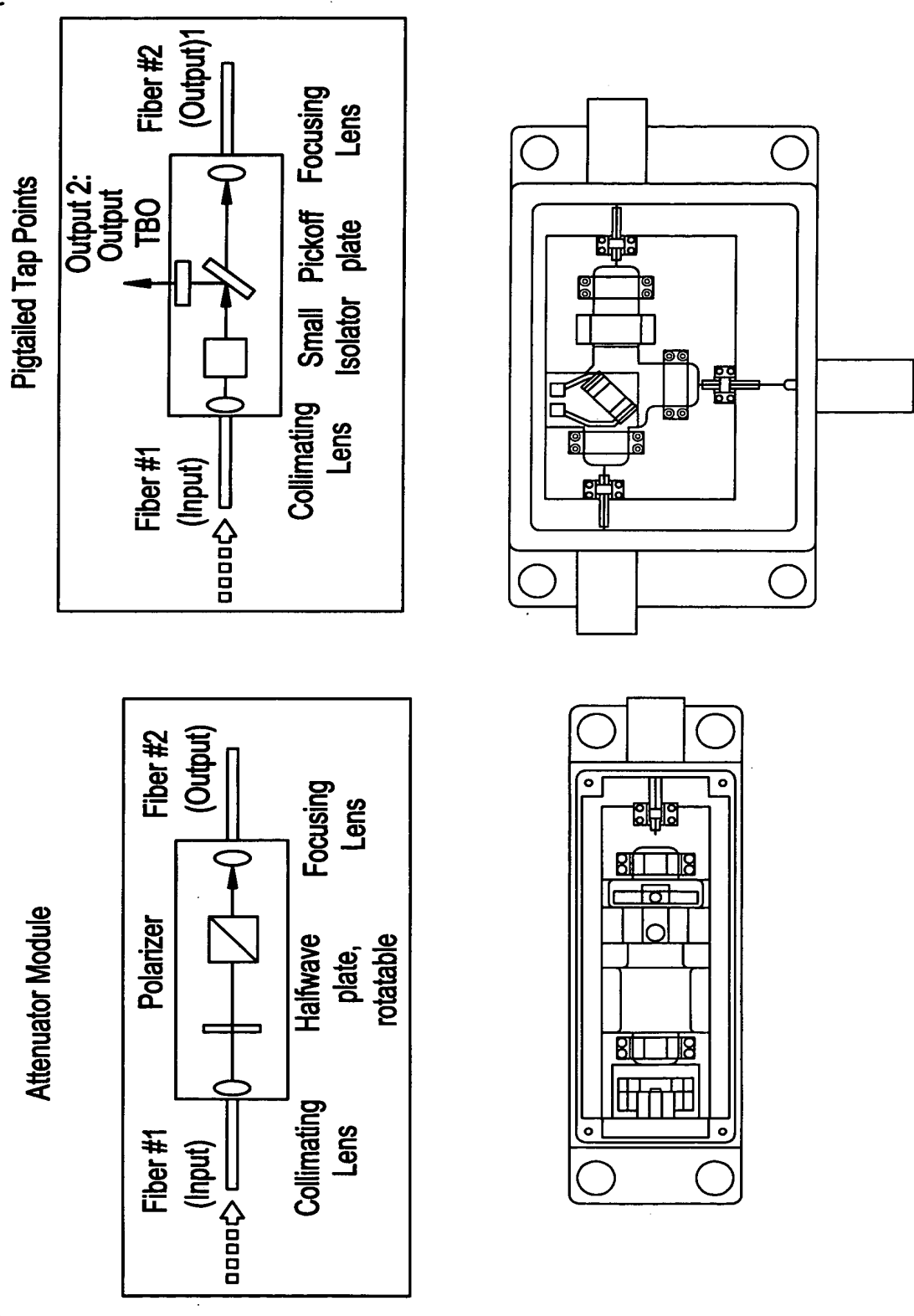


FIG. 3

Optical Layout for Down counter module

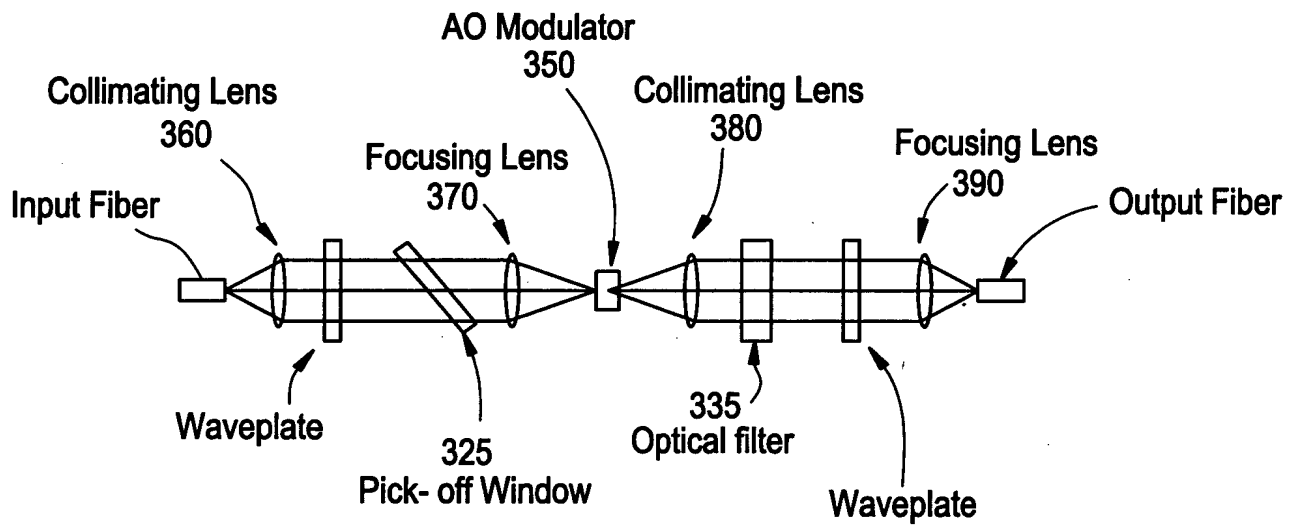


FIG. 4

Temporal performance of down counter

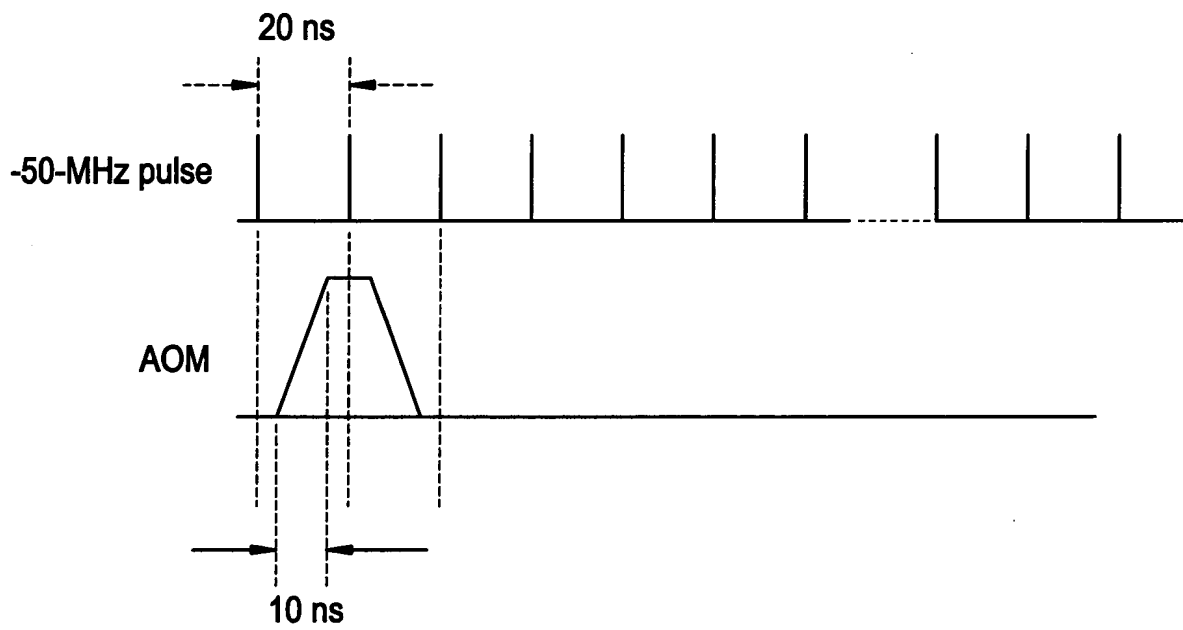


FIG. 5A

Spectrum from oscillator and
after first filter, isolator and attenuator module

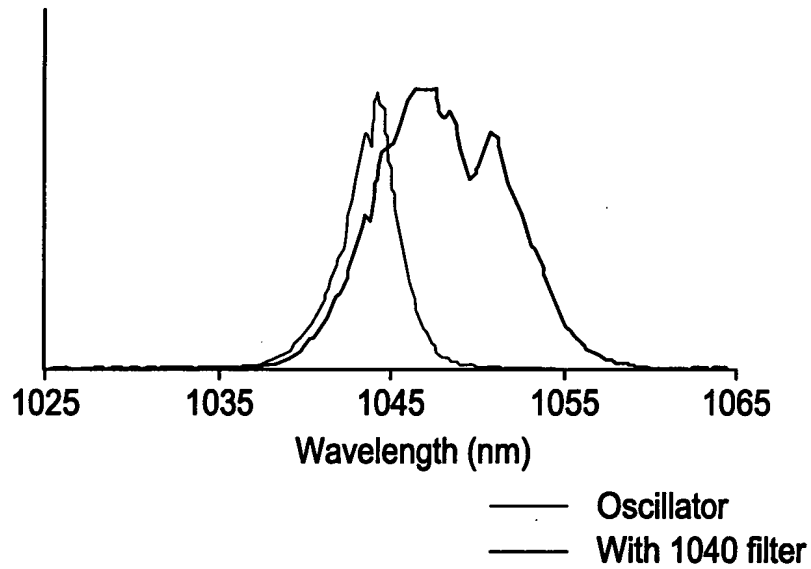
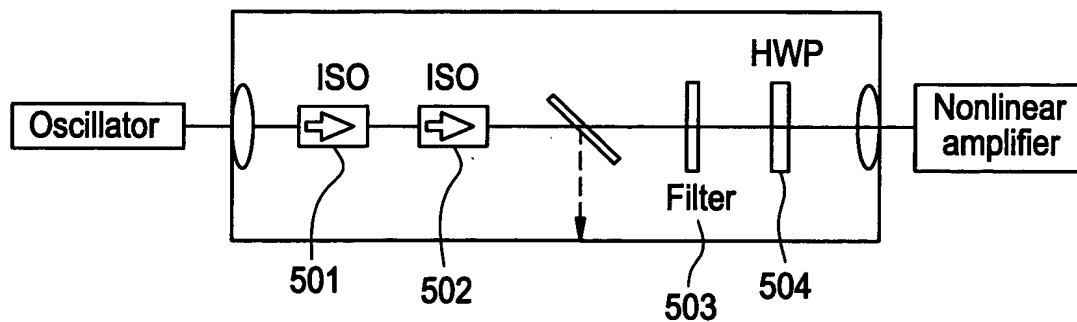


FIG. 5B

Component illustration of
filter, isolator and attenuator module



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FIG. 6A

Spectrum from nonlinear amplifier as a function of pump diode current and ASE spectral output at peak current

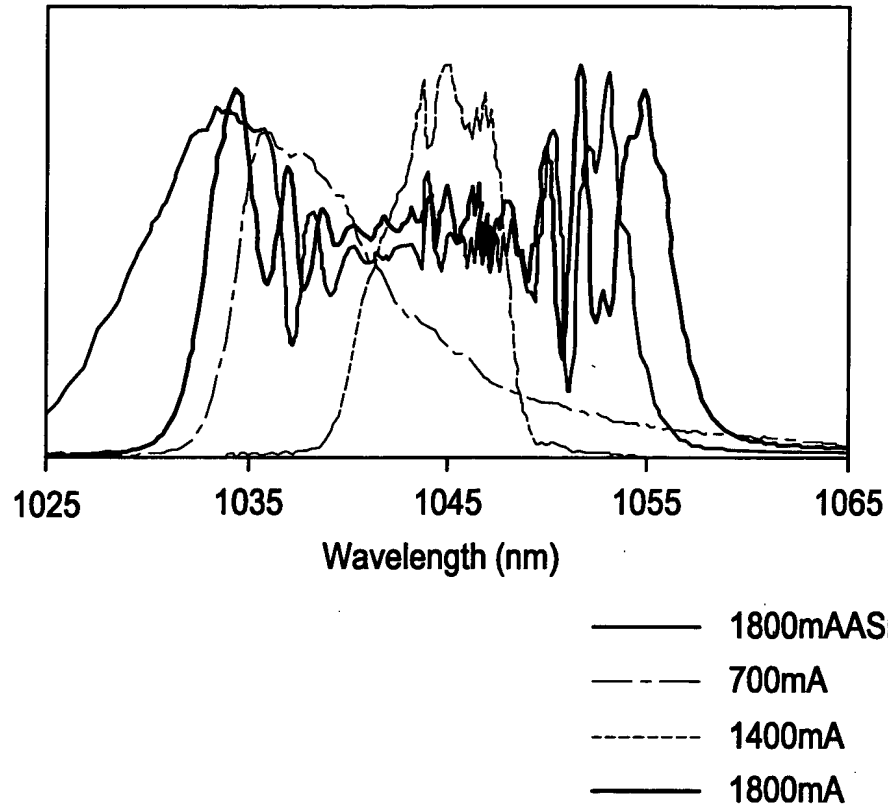


FIG. 6B

Component illustration of isolator -attenuator module between nonlinear amplifier and stretcher

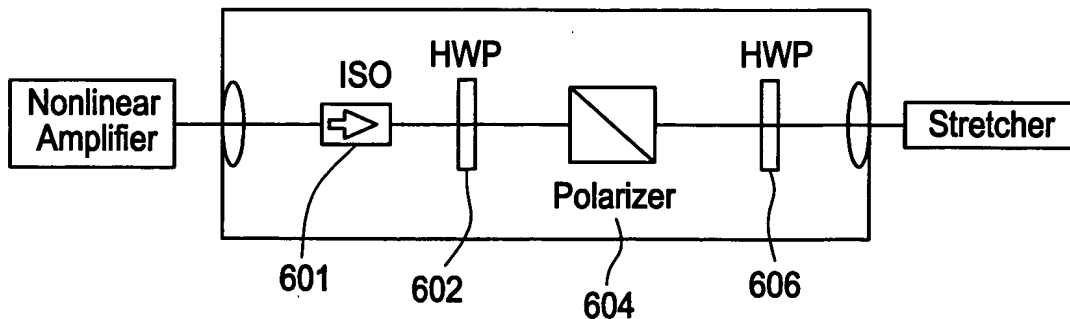
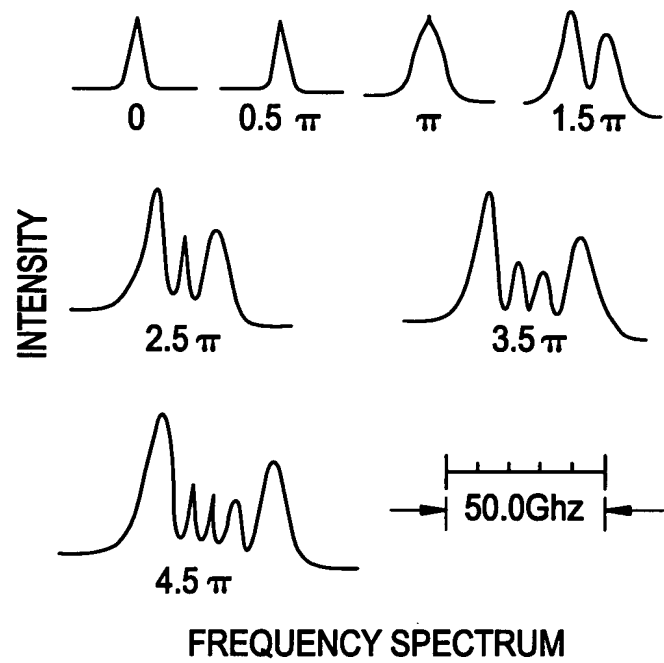


FIG. 7

Spectrum of pulses with self-phase
modulation propagating in a positive dispersion fiber



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FIG. 8A

Temporal profile of the pulse after stetcher

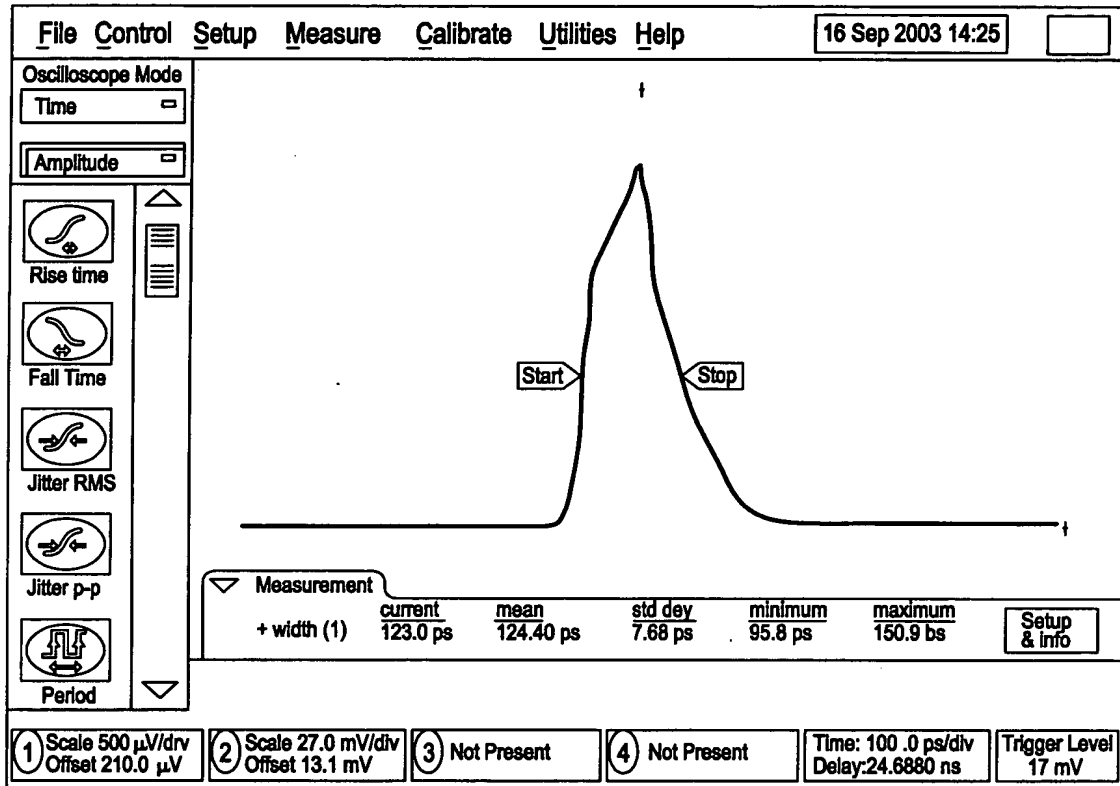
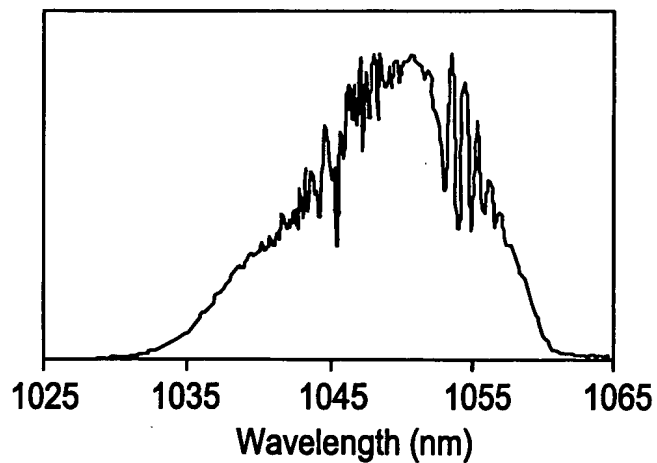


FIG. 8B

Spectral profile of the pulse after stetcher



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FIG. 9

Spectrum after power amplifier

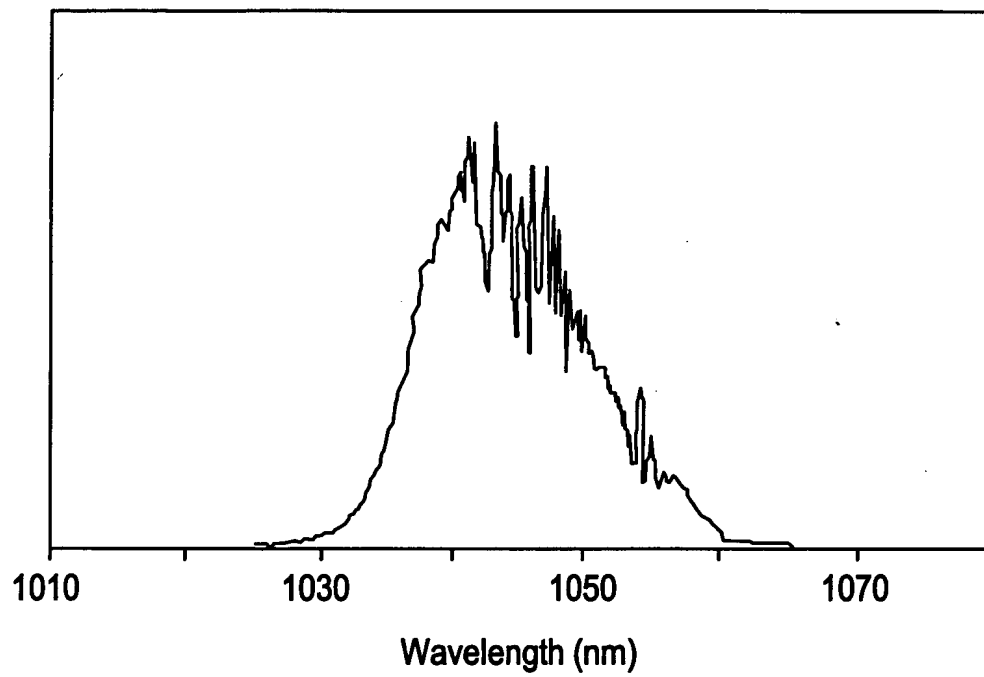


FIG. 10A

Auto correlations of output pulse 5 ps range

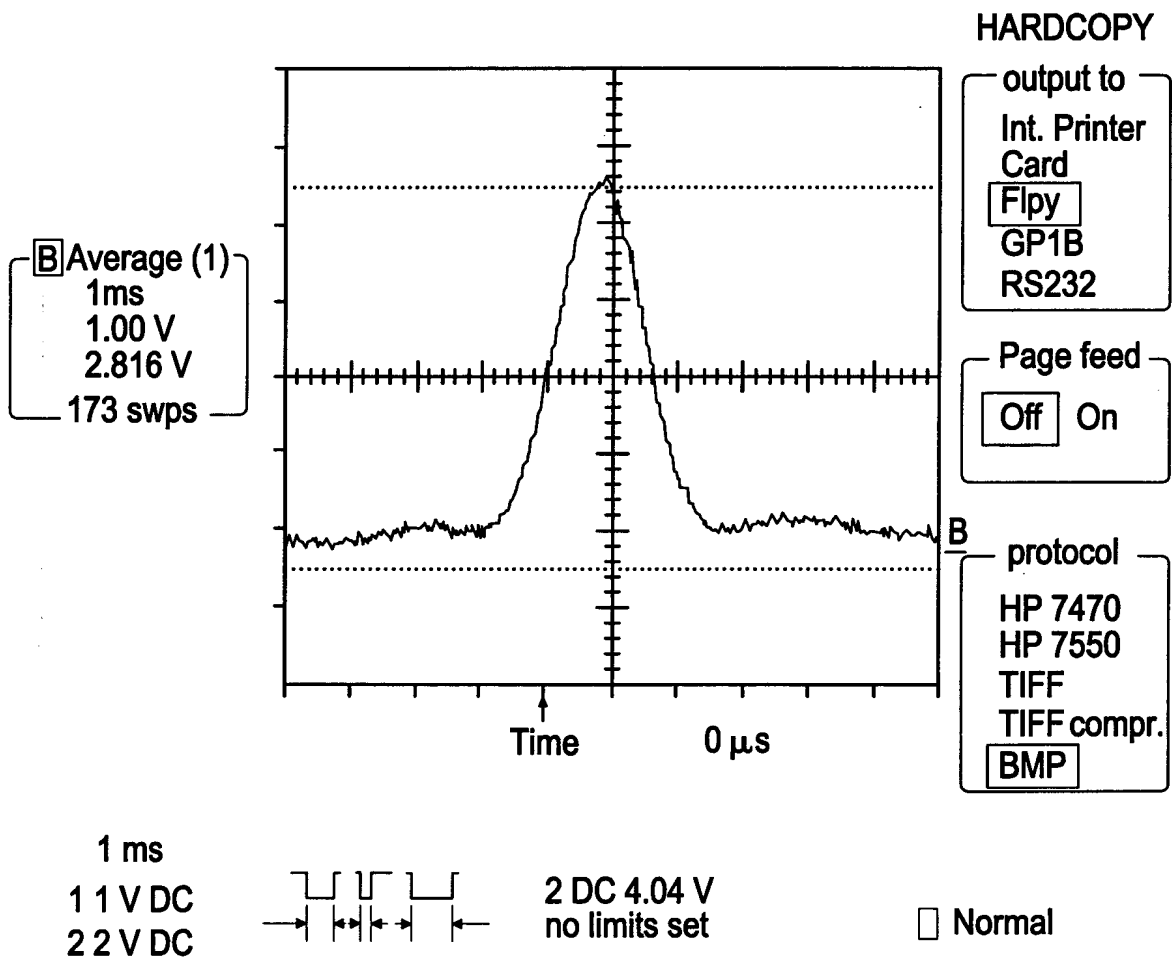


FIG. 10B

Auto correlations of output pulse 50 ps range

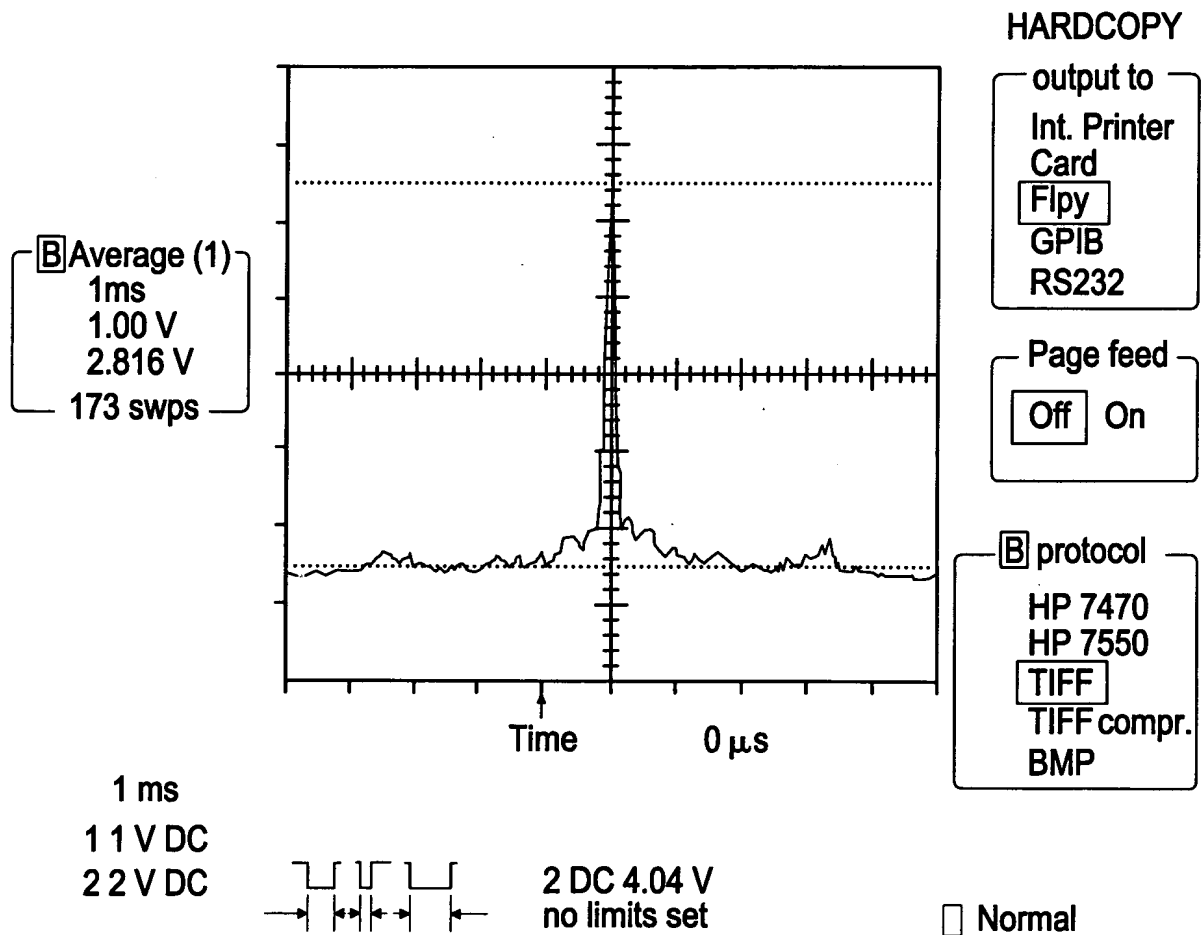


FIG. 10C

Auto Correlations of Output Pulse Spectrum of Output

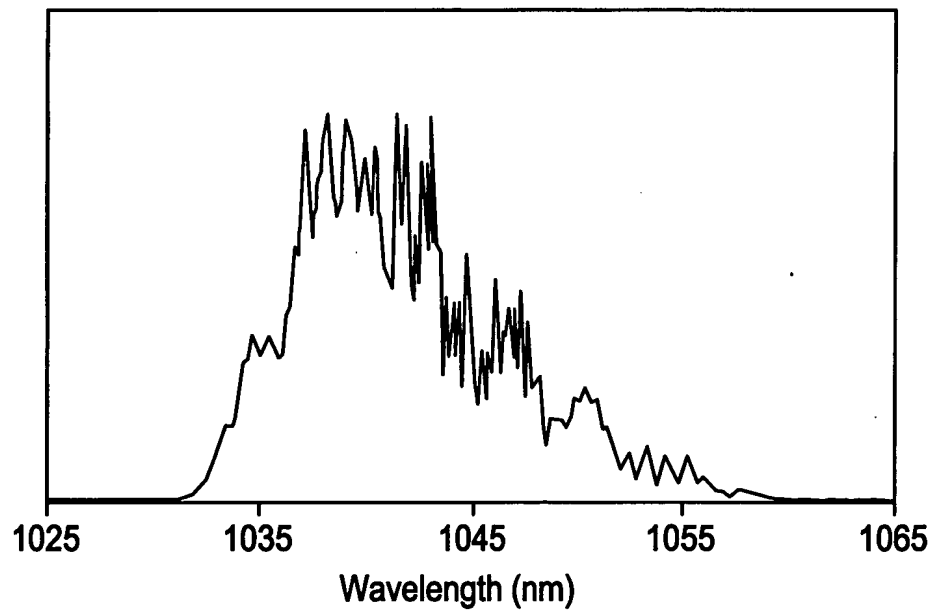


FIG. 11

FCPA block diagram (second embodiment)

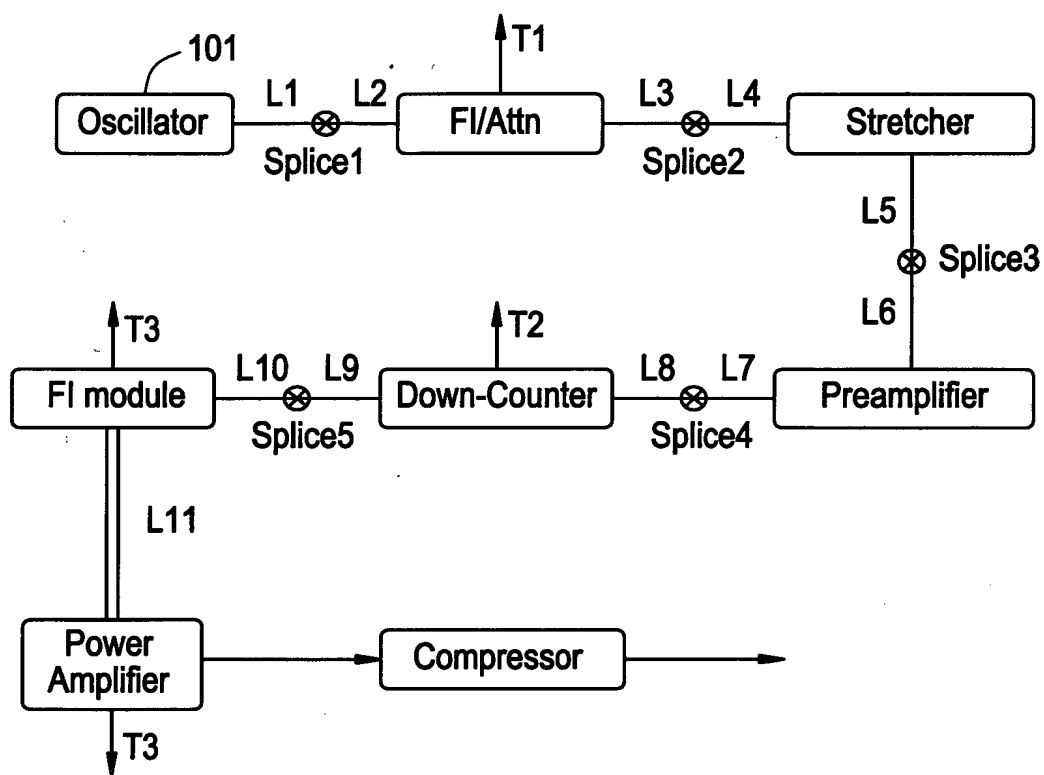


FIG. 12A

Spectrum from oscillator

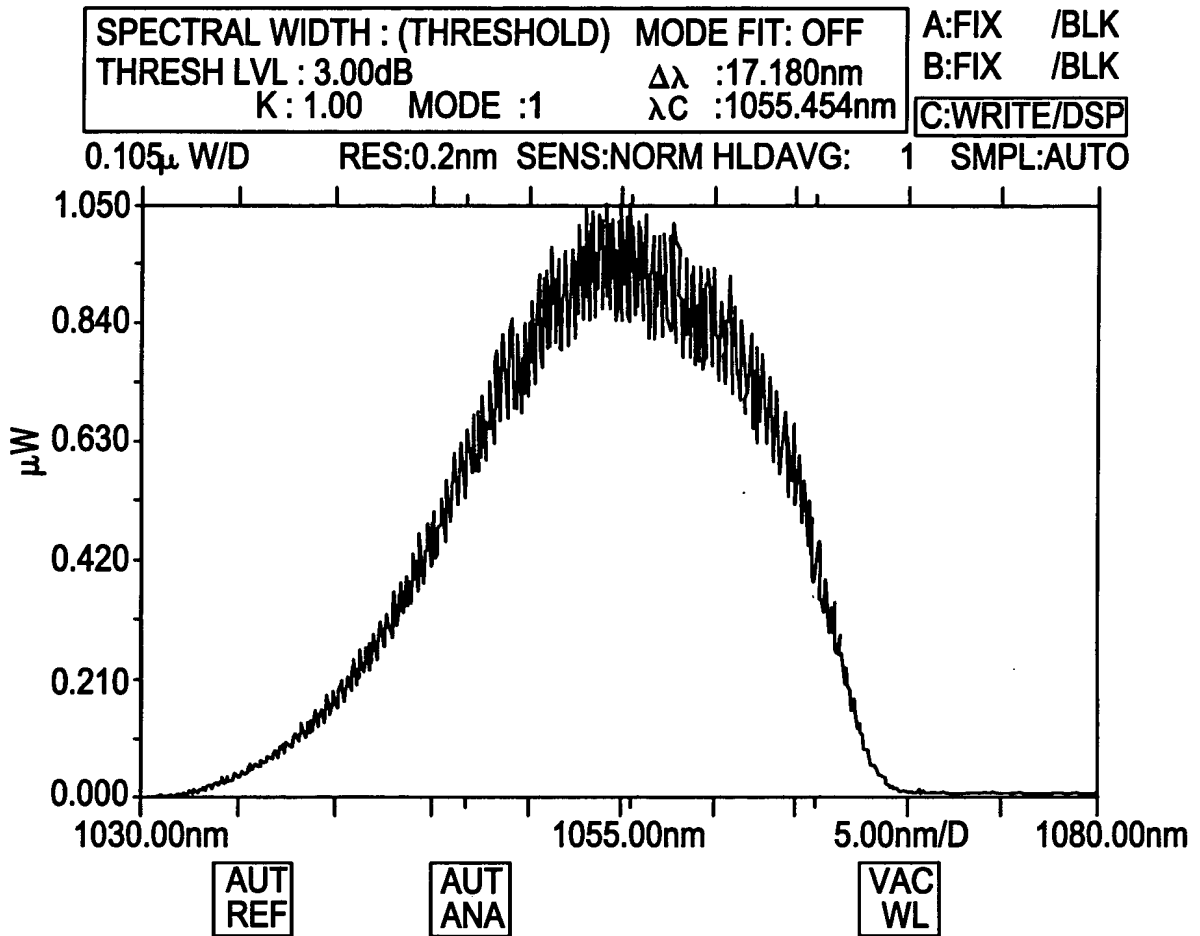


FIG. 12B

Spectrum after filter module

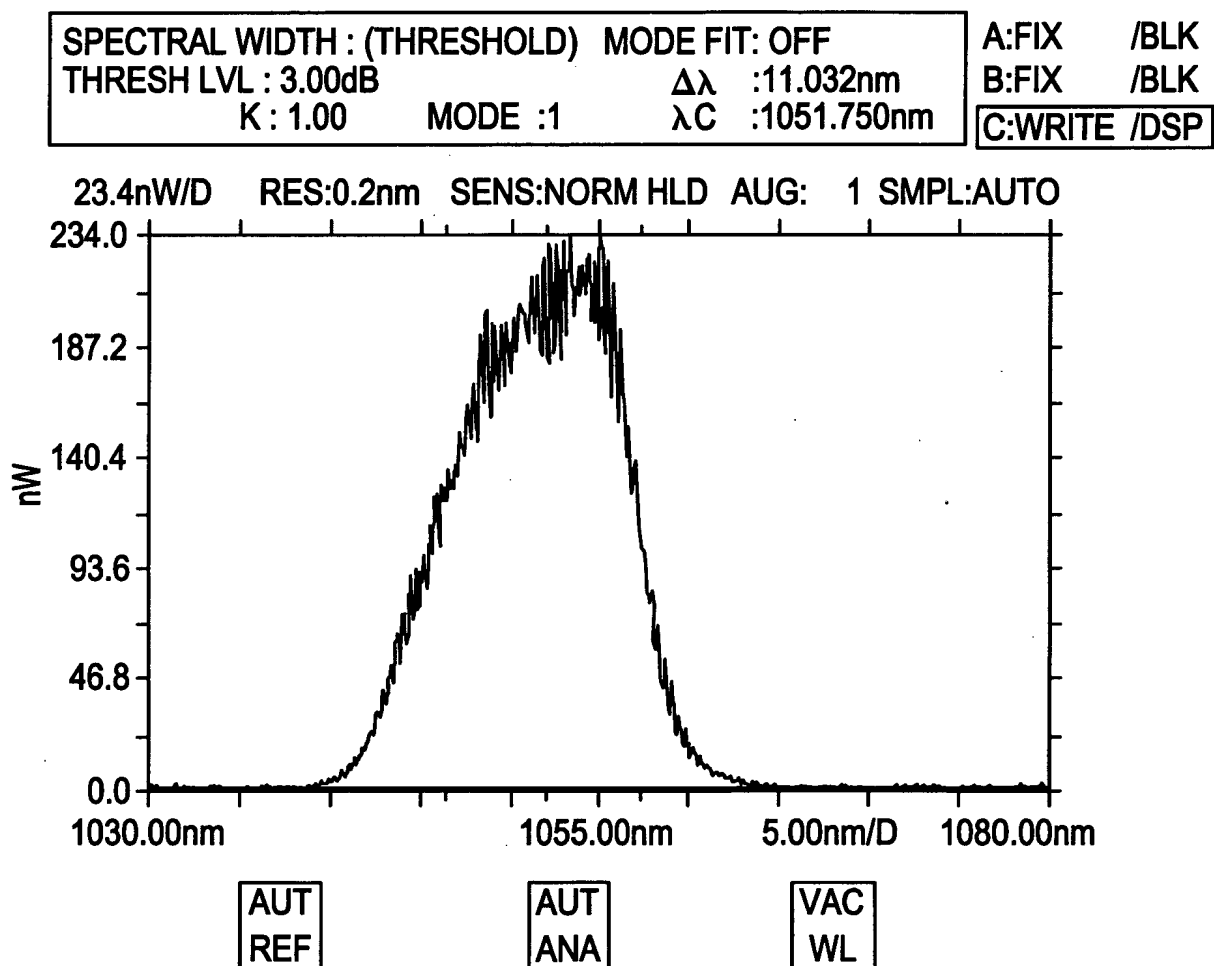


FIG. 13A

Spectrum after preamplifier

SPECTRAL WIDTH : (THRESHOLD) MODE FIT: OFF		A:FIX	/BLK
THRESH LVL : 3.00dB	$\Delta\lambda$: 8.854nm	B:FIX	/BLK
K : 1.00	MODE : 1	λ_C : 1052.190nm	C:WRITE /DSP

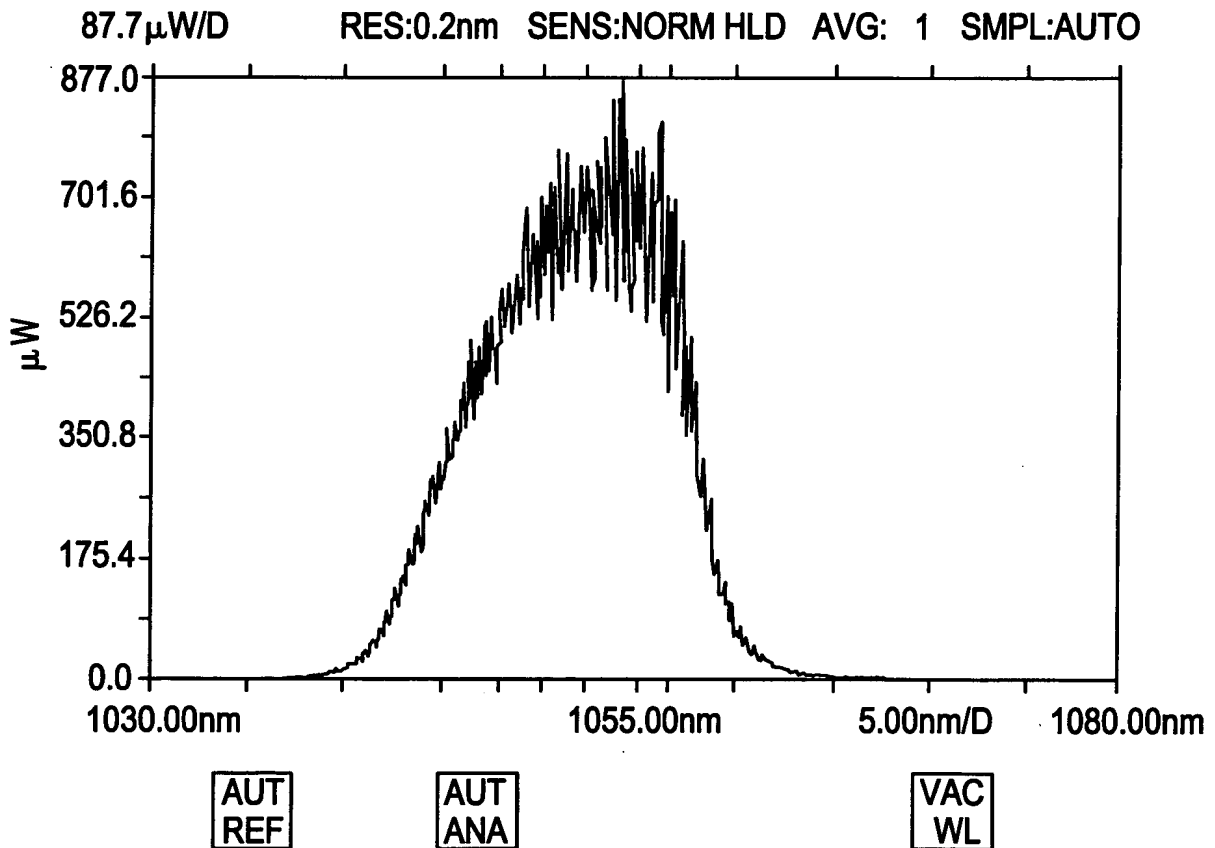


FIG. 13B

Spectrum after power amplifier

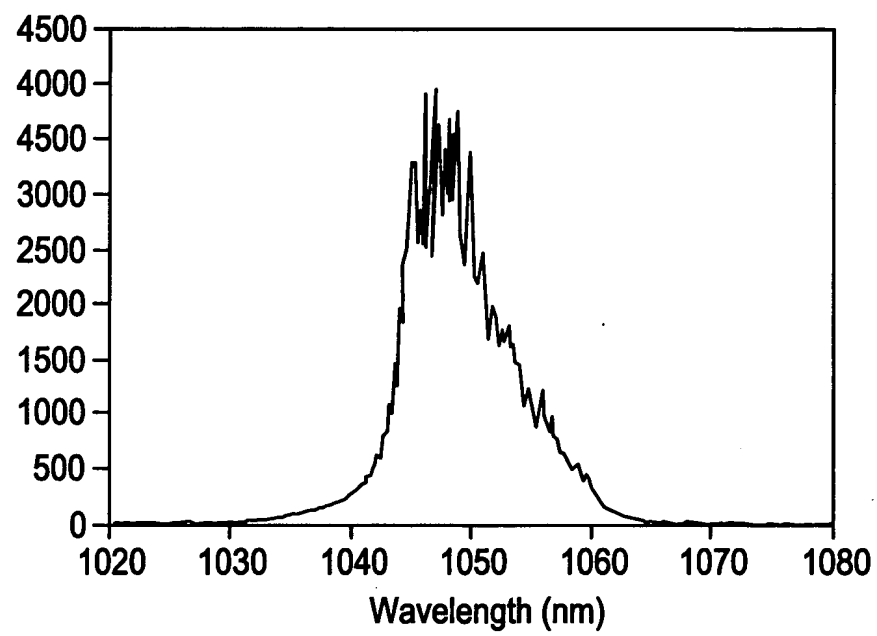
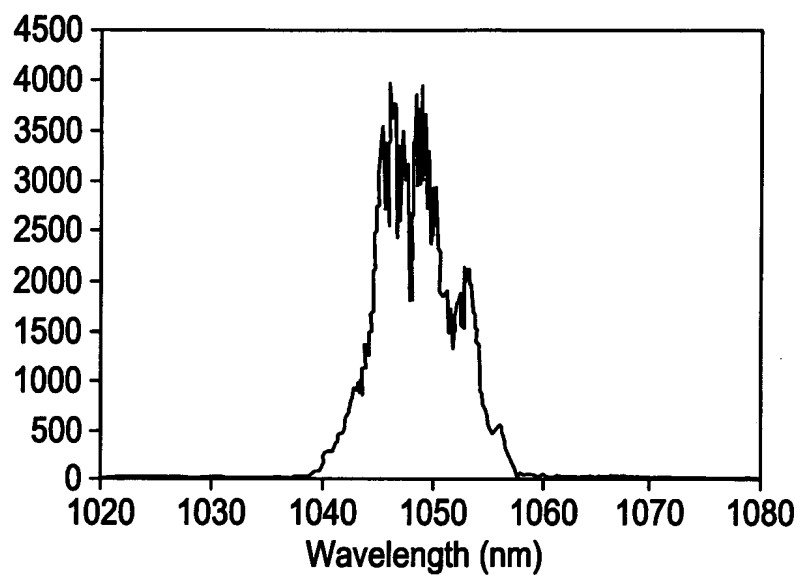
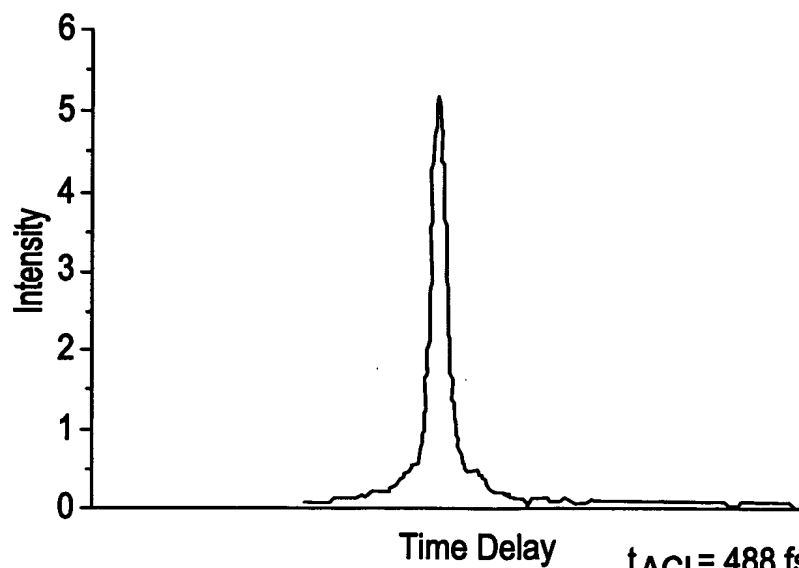


FIG. 14A

Spectrum after compressor

**FIG. 14B**

Autocorrelation of compressed pulse



$t_{ACI} = 488$ fs
Pulse width : 345 fs
Assuming Gaussian shape

FIG. 14C

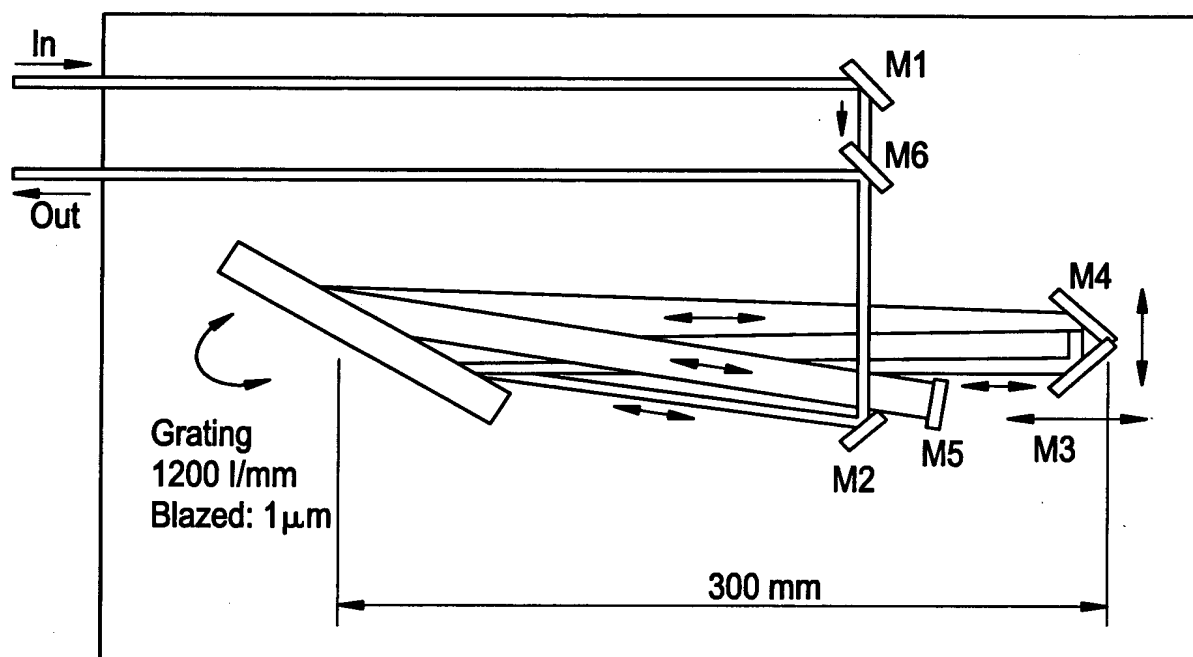


FIG. 15

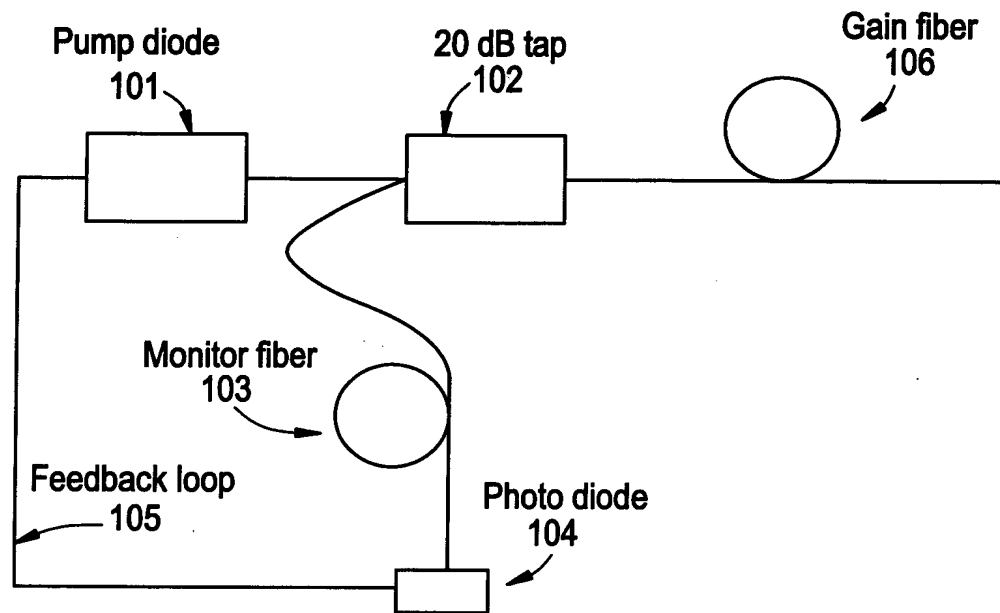


FIG. 16

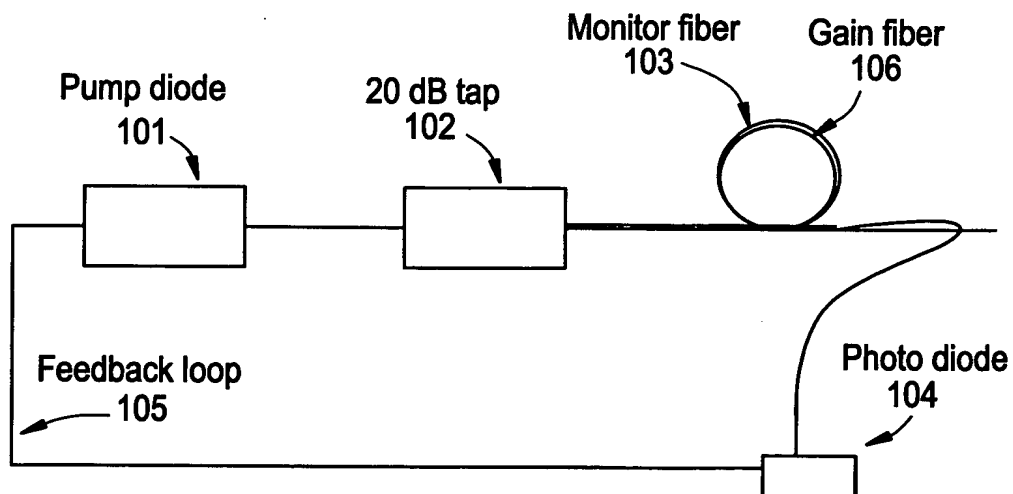


FIG. 17

Acousto-optic Deflector Illustrating Dispersive Characteristic of Induced Bragg Grating

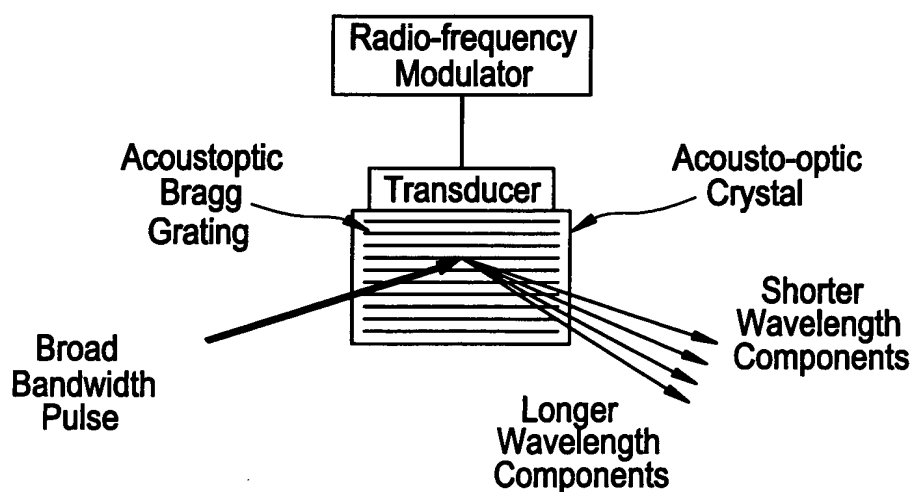


FIG. 18

Rudimentary Two-pass Chirped-pulse Dispersion-compensated Acousto-optic Switch using Transmission Gratings

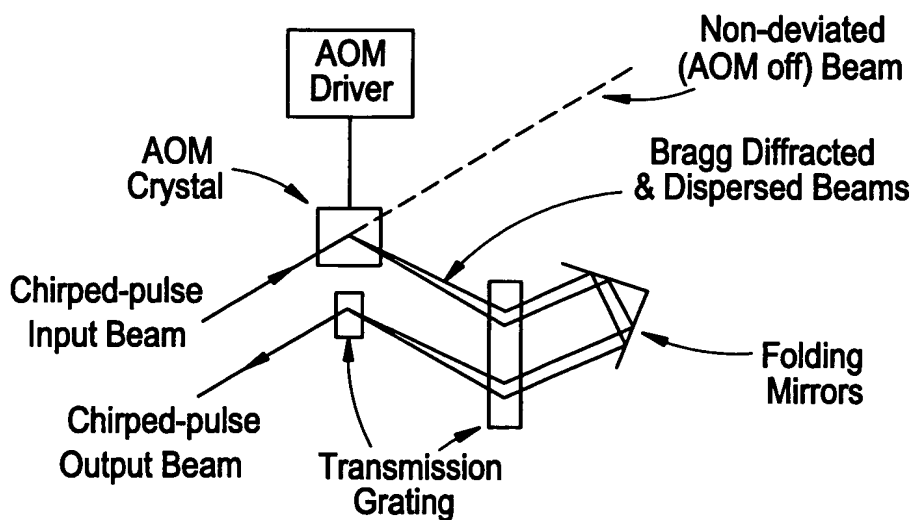


FIG. 19

Lens-enhanced Two-pass Chirped-pulse Dispersion-compensated Acousto-optic Switch using Transmission Gratings

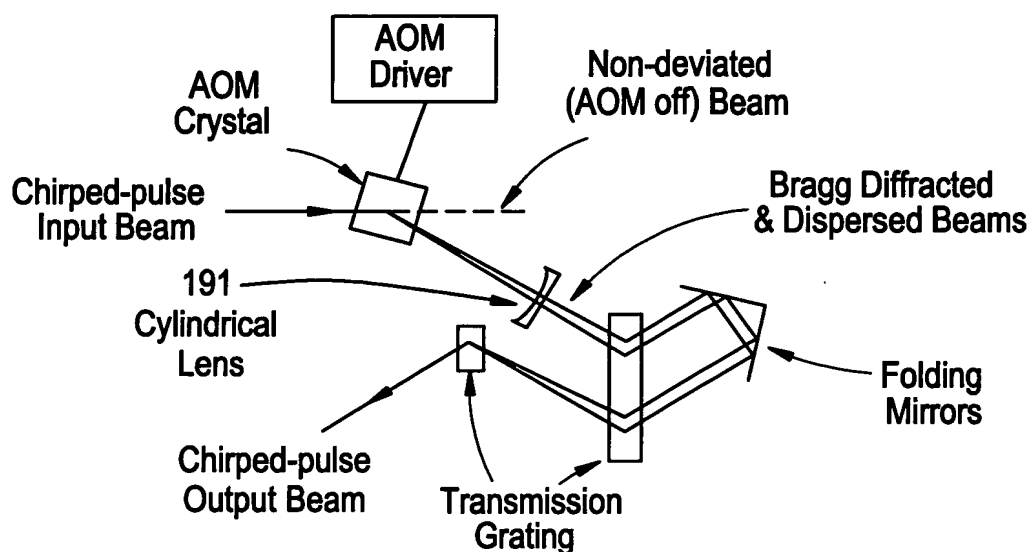


FIG. 20

Lens-enhanced Four-pass Chirped-pulse Dispersion-compensated Acousto-optic Switch using a Reflection Grating

